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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,071	12/05/2003	Eric D. Henn	EDROE-010A	9176
7663	7590	12/21/2004	EXAMINER	
STETINA BRUNDA GARRED & BRUCKER			YEE, DEBORAH	
75 ENTERPRISE, SUITE 250			ART UNIT	
ALISO VIEJO, CA 92656			PAPER NUMBER	

1742

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

10/729,071

Applicant(s)

HENN ET AL.

Examiner

Deborah Yee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5-11-04</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 to 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beguinot et al. (US Patent 5,645,794) or Beguinot et al. (US Patent 5,855,846).

3. Beguinot'846 in claim 1 of columns 9 and 10 and Beguinot'794 in claim 5 of column 8, each teach a steel having a composition with alloying constituents whose wt% ranges overlap or closely approximate those recited by claim 1, 3 and 13; such similarities renders applicant's composition prima facie obvious because it would have been obvious to one of ordinary skill in the art to select the claimed alloy ranges from the broader disclosure of the prior art because the prior art has the same utility (tool steel used for the manufacture of molds for plastics) and similar hardness properties. See MPEP 2144.05.

4. Moreover, applicant has not demonstrated (e.g. by comparative test data) that the more narrowly ranges claims are somehow critical and productive of new and unexpected results. Note Beguinot'794 teaches 1 to 2.5% Mn whereas the present invention recites 0.6 to 0.9%. Since applicant has not demonstrated criticality of the Mn range, then it would seem that a composition with 0.9%Mn vs. a composition with slightly more (say 1%) Mn would depict a mere difference in the proportion of element

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without any attendant unexpected results; hence claims would not patentably distinguish over prior art.

5. Beguinot'794 in claim 11 discloses a mold having hardness between 270HB and 350HB and Beguinot'846 in Table 2 of column 9 discloses steel examples having hardness values ranging from 295 to 331BHN, which overlap the 277 to 311 BHN hardness value recited in claims 2, 3, 13, 19 and 20 .

6. Moreover, Beguinot discloses alloying constituents with wt% ranges that overlap those recited by dependent claims 4 to 12 and 14 to 18.

7. Beguinot, also, teaches a tool steel processed in substantially the same manner as recited by claims 19 and 20. Note Beguinot'846 on lines 35 to 42 of column 7 teaches steel slab is subjected to rolling or forging, air quenching and then subjected to annealing (equivalent to tempering) at 500C to <Ac1. Furthermore, Beguinot'794 on lines 42 to 60 teaches smelting, preoxidizing to remove impurities, rolling or forging, air quenching and tempering at greater than 500C. Even though prior art does not teach melting material in an electric furnace, vacuum degassing to avoid impurities and providing an argon shield during pouring as recited by claims 19 and 20, such would not be a patentable differences since these steps are well known and conventional in the metallurgical art and are commonly utilized in the making of steel and hence would be obvious for the artisan to incorporate.

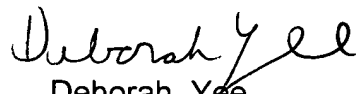
***Claim Objections***

8. Claims 19 and 20 are objected to because of the following informalities:  
"harness" should be ~~–hardness–~~. Appropriate correction is required.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Deborah Yee  
Primary Examiner  
Art Unit 1742

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